Draghead Depth Check

The Contracting Officer's Representative may require periodic calibration checks of the reported draghead depth using manual means such as tape measures or sounding lines to directly measure draghead depth. The Contractor shall have on the dredge a steel tape, chain, or wire with clearly visible flags/tags placed at 1 foot increments within the operational range of the dragarm. This tape or chain shall be capable of measuring the depth below the water surface to the lowest fixed point of each draghead (often the heel) with sufficient length to measure 5 feet over the maximum project depth. Where pressure sensors are used to calibrate the draghead depth sensors there is little ability to prove the calibration of either sensor and this method is only acceptable in areas where current flow past the vessel/dragarm cannot be minimized enough to safely handle a measuring chain/tape. If this type instrument is used for dragarm calibration, it must be a vented pressure gage and shall be required that it be sent out for yearly manufacturer's calibration and then checked at a known depth during inspection. Extra care shall be taken not kink the cable or restrict the vent during deployment.

The Contracting Officer's Representative will review the draghead depth data to insure that the system is operating within acceptable accuracy, directing the contractor to re-calibrate or repair system components as necessary. Weekly calibration of the draghead depths are recommended as these sensors are sensitive to environmental conditions.

Purpose: To verify accuracy of draghead depth sensors.

Material Required:

1) Draghead Depth Check form.
2) Chain or tape, marked at foot intervals, or known distances within the operational range of the dragarm
3) Handheld radio to communicate with bridge

Procedure:

For each draghead, the steel tape or chain shall be attached to the draghead and any offset to the bottom shall be noted. The draghead shall be lowered so that one of the flags is even with the water surface. Note the depth indicated by the chain or tape. Call up to the bridge and record the value they are reading on the SI screen. Repeat the procedure for three or four depths within the operating range of the draghead.

Difference between manually- and system-measured averages should be equal to or less that 0.5 ft.

This test is highly dependant on wave heights and should be conducted in very low wave situations due to error caused by reading the measuring tape correctly.

PORT DRAGHEAD DEPTH CHECK

							ft
Offset between tape (attachment) measurement point and draghead bottom:							
Manually-Measured Depths				**Instrument-measured**		**Instrument vs. Manual**	
Average		Offset-Adjusted Depth		**Average**		Delta	
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
Check Results:			**pass**		**fail**		

STARBOARD DRAGHEAD DEPTH CHECK

							ft
Offset between tape (attachment) measurement point and draghead bottom:							
Manually-Measured Depths				**Instrument-measured**		**Instrument vs. Manual**	
Average		Offset-Adjusted Depth		**Average**		Delta	
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
	ft	0	ft		ft	0	ft
Check Results:			**pass**		**fail**		
Remarks:							